

Application/Control Number: 09/965,374
Art Unit: 2127

Docket No.: PALM-3612

REMARKS

Reconsideration and allowance are requested. Claims 1 - 29 are pending and each claim is amended. No amendments should narrow the scope of the claims and no limitations are added to overcome prior art. The amendments clarify the claims in terms of antecedent basis or other issues. The terms "said" are changed to "the" to make the claims easier to read.

Rejection of Claims 1 - 9, 16 - 22 and 26 - 29 Under Section 112

Applicant respectfully submits that in above amendments addresses each of the Examiner's Section 112 rejections. In most cases, it is clear where the amendments obviate any specific rejection. None of the amendments are for the purpose of adding limitations to the claims or narrowing the claims.

Applicant notes that in line 10 of claim 1, that the background task ranks the at least one registered service according to requirements of each of the at least one registered service. The amendment clarifies that the ranking can occur for one or more registered service and that the raking is performed according to requirements associated with each service.

The language of claim 29 is also clarified to recite that the service manager dynamically registers the plurality of applications.

Therefore, Applicant respectfully submits that these claims now conform to Section 112.

Rejection of Claims 1, 3, 4 - 8, 10, 12 - 14, 16, 18 - 22 and 26 - 29 Under Section 103

The Examiner rejects claims 1, 3, 4 - 8, 10, 12 - 14, 18 - 22 and 26 - 29 under Section 103 in view of U.S. Pat. No. 6,330,583 to Reiffin ("Reiffin") and U.S. Pat. No. 6,021,425 to Waldron et al. ("Waldron et al."). Applicant notes that the Examiner mentioned on page 4 Patent No. 6,098,090 as being to Waldron. The '090 patent issued to Burns. It is assumed

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based on a study of the Office Action that the Examiner meant the '425 patent. If this is incorrect, Applicant requests a clarification in non-final Office Action.

We turn to claims 1 and 10. To establish a *prima facie* case of obviousness, the Examiner must meet three criteria. First, there must be some motivation or suggestion, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to combine the references. Second, there must be a reasonable expectation of success, and finally, the prior art references must teach or suggest all the claim limitations. The Examiner bears the initial burden of providing some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." MPEP 2142.

Applicants also note with reference to the discussion below, that the MPEP requires that each prior art reference must be considered in its entirety, as a whole, including portions that would lead away from the claimed invention. MPEP 2141.02. Further, the Examiner must consider the entire teachings of each reference when weighing the power of each reference to suggest solutions to one of skill in the art and whether one of skill would combine the teachings of two or more references. MPEP 2143.01. The standard applied is by a preponderance of the evidence, in other words, it only needs to be less likely than not that one of skill in the art would have motivation to combine these references.

With these principles in mind, Applicant traverses the conclusion that one of skill in the art would be motivated to combine Reiffin with Waldron et al. The Examiner is correct in concluding the Reiffin fail to teach ranking the registered service and scheduling the registered services in the dedicated pre-assigned time slice. The Examiner however concludes that it would be obvious to combine Reiffin with Waldron et al. because Waldron

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et al.'s ranking process would improve the efficiency in Reiffin's system by allowing a task having a higher priority to run first. What we shall see is that these two references are technically different and thus mutually exclusive. One of skill in the art would recognize these differences and not find motivation to combine these patents. In fact, there are substantial reasons supporting a conclusion that these references teach away from one another.

Reiffin teaches a networked solution for processing large compute-intensive tasks on a distributed parallel basis. The network comprises a plurality of workstations or personal computers each having a pre-emptive multitasking feature where a remote network subtask can be processed on the workstation in the background. Reiffin's idea involves breaking a task down into parallel subtasks executed simultaneously on different workstations. A "task" in Reiffin is a compute job such as a science analysis that is too large for a single processor. The idea is to utilize unused workstation time. See Abstract. In sum, Reiffin's idea uses more computing power in a network of workstations for large tasks.

In contrast to Reiffin's network invention, Waldron et al. teach a system and method for optimizing the efficiency of a single central processing unit (CPU). Their invention focuses on normal scheduling and expedited scheduling of tasks on the single CPU. The idea is fairly simple: where a higher priority task is placed in a queue to be processed by the CPU, it can take an expedited scheduling path and be processed earlier than lesser priority tasks. See Abstract. It is certainly notable that Waldron et al.'s invention is purely focused on the CPU and does not mention or suggestion of any network application. At a high level, the differences in the approaches of each reference lead away from any motivation to combine. Reiffin's network-centric invention does not have much applicability to Waldron et al.'s single-CPU based scheduling invention. Therefore, since the standard for combining references is only by a preponderance of the evidence, Applicant submits that in the balance,

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is it unlikely that one of skill in the art would combine Reiffin's network-centric concept with Waldron et al.'s a single workstation idea.

In addition to this basic difference in technology, other reasons exist for the lack of any suggestion or motivation to combine. For example, the Examiner states that Waldron et al.'s ranking of tasks would improve the efficiency of Reiffin's system. However, the "tasks" mentioned in each patent differ. A "task" in Reiffin's invention is a compute-intensive task that is "too large for an individual workstation". See Abstract. Therefore, even reading just the Abstract would lead a person of skill in the art away from any reference that proposes to improve efficiency only in a single workstation. The "task" in Waldron et al. is limited to a program processed on a single CPU. Technically, the Waldron et al. ranking and scheduling of tasks on a single workstation would have no applicability to the type of task at issue in Reiffin which is too large for processing on a single workstation. Examples are provided in each patent to clarify the type of tasks contemplated. Reiffin mentions large compute-intensive applications that arise in science, engineering, financial analysis, image processing and other fields. Col. 1, lines 50 - 54. In contrast, Waldron et al. mention an example task that is a game loaded onto a computer where score needs to be kept. Col. 2, lines 15 - 25. It would be clear to one of skill in the art that the types of "tasks" contemplated by each patent differ in how much processing power need to run and therefore the kind of scheduling is needed to enable them to process.

Waldron et al.'s ranking and scheduling of tasks is therefore limited to managing input and output for a single CPU and creating a normal path and an expedited path for execution of tasks on the processor. This particular type of ranking and scheduling does not help Reiffin because the tasks contemplated in Reiffin cannot be run on a single processor and need the power of a networked group of workstations. In fact, Reiffin teaches that on any given workstation, the CPU is interrupted which takes away CPU control from the local workstation so that a networked task can be processed. Col. 2, lines 42 - 47. In other words,

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Reiffin's process teaches that it would simply pre-empt control of the CPU from the local control (Waldron et al. is exclusively local control and scheduling). Therefore, Waldron et al.'s local CPU ranking system would essentially provide no benefit in Reiffin because it would simply be preempted by or interleaved with remote subtasks. See Reiffin, Col. 3, lines 1 - 20.

The stated motivation for combining by the Examiner would actually not occur if these references were combined. If Waldron et al.'s CPU ranking and scheduling application were applied to a workstation that is networked according to Reiffin, it would simply have no effect on a Reiffin task because those tasks are too large for any single CPU and are scheduled separately from the local control of any given workstation. In other words, blending these references would only cause one or more of the workstations in Reiffin to rank and schedule local tasks for its respective CPU. The basic principles of operation of either Waldron et al. and/or Reiffin would have to be modified to blend these references in such a way as suggested by the Examiner.

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purposes, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Further, if the proposed modification of the prior art would change the principle operation of the prior art invention being modified, then the teaching of the reference is not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The principles outlined in both these cases are applicable here.

Accordingly, Applicant respectfully submits that there is no motivation or suggestion to combine these references. For these reasons, claims 1 and 10 are patentable and in condition for allowance.

Claims 3 and 4 - 8 each depend from claim 1 and recite further limitations therefrom. Accordingly, these claims are patentable as well. Claims 12 - 14 depend from claim 10 and

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recite further limitations therefrom. Accordingly, these claims are patentable. The Examiner rejects claim 16 for the same reasons essentially as claim 1. Therefore, for the reasons set forth above, Applicant submits that claims 16 and dependent claims 18 - 22, as well as claims 26 - 29 are patentable and in condition for allowance.

Rejection of Claims 2, 9, 11, 15 and 17 Under Section 103

The Examiner rejects claims 2, 9, 11, 15 and 17 under Section 103 as being unpatentable in view of Reiffin, Waldron et al. and further in view of U.S. Pat. No. 6,098,090 to Burns ("Burns"). Applicant traverses this rejection and submits that because, by a preponderance of the evidence, there is no suggestion or motivation to combine the primary references of Reiffin with Waldron et al., claims 2, 9, 11, 15 and 17 are patentable and in condition for allowance.

CONCLUSION

Having addressed all rejections, Applicant respectfully submits that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

The Commissioner is hereby authorized to charge any necessary fees (or credit any overpayments) associated with this communication and which may be required to Deposit Account No. 50-3102, referencing Attorney Docket No. PALM-3612.

Respectfully submitted,

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